Site Characterization Report and Remediation Workplan

August 9, 2024

West Eumont Unit #525
Produced Water Release
Incident No. nAPP2405856306
Lea County, New Mexico

Prepared For:

Forty Acres Energy, LLC
11757 Katy Freeway, Suite 725
Houston, Texas 77079

Prepared By:

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Cynthia K. Crain, P.G.

Grain Environmental

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1.0 Introduction

Crain Environmental (CE), on behalf of Forty Acres Energy, LLC (FAE), has prepared this *Site Characterization Report and Remediation Workplan* for the produced water release at West Eumont Unit #525 (Site), located approximately 13 miles northwest of Eunice and approximately 15 miles southwest of Hobbs, in Lea County, New Mexico. The global positioning system (GPS) coordinates for the release are 32.533204, -103.328195. The property surface rights are privately owned. Land use in the Site vicinity is primarily oil and gas production activity and cattle grazing. The location of the Site is depicted on Figure 1.

2.0 Background

On February 22, 2024, a release from a flowline located approximately 144 feet (') west of the West Eumont Unit #525 was discovered. As a result of corrosion, approximately 22 barrels (bbls) of produced water were released. Immediately following the release, the area was secured, a vacuum truck was mobilized to the Site, and the line was repaired. The released fluid covered a surface area of approximately 420 square feet. Approximately 17 bbl of fluid were recovered. The release point and the surface extent of the release are depicted on Figure 2.

A Notification of Release (NOR) was submitted to the New Mexico Oil Conservation Division (NMOCD) on February 27, 2024, and Incident #nAPP2405856306 was assigned. An Initial Form C-141 (Release Notification Report) was submitted February 28, 2024. On July 30, 2024, the NMOCD approved an extension for submittal of a Site Characterization Report and Remediation Workplan until August 20, 2024. Appendix A provides a copy of the C-141. Appendix B provides a copy of NMOCD correspondence.

This *Site Characterization Report and Remediation Workplan* has been prepared prior to the due date of August 20, 2024, in accordance with 19.15.29.11 New Mexico Administrative Code (NMAC).

3.0 NMOCD Closure Criteria

Cleanup standards for produced water spills are provided in 19.15.29 NMAC. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater but are also based on other criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
- Within 1,000 feet of any fresh water well or spring.

- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

CE reviewed available information to determine the Closure Criteria for the Site. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

A review of the New Mexico Office of the State Engineer (NMOSE) records indicated there are no water wells located within 0.5 mile of the Site; however, FAE provided documentation that a well (L-15554 POD 1) was installed on August 25, 2023, to a depth of 105' below ground surface (bgs) and groundwater was not encountered. The well is listed in the table below. Figure 3 provides a 0.5-mile radius circle around the Site and shows the location of well L-15554 POD 1. The well log is provided in Appendix C. Based on the available water well data, it is estimated that depth to groundwater at the Site is greater than 100 feet bgs.

Nearby Water Wells

Well ID	Location from Release Site	Year Installed	Use	Total Depth / Depth to Water (feet bgs)
L-15554 POD 1	Approx. 2,836 feet to NE	2023	N/A	105 / DRY

3.2 Surface Features and Other Development

CE reviewed recent aerial photographs, topographic maps, the NMOSE Point of Discharge (POD) GIS website, and information available from the Lea County, New Mexico Central Appraisal District website. As shown on Figure 1, the Site is **not** located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
  - No continuously flowing watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the topographic map (Figure 1).
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
  - The topographic map (Figure 1) indicates there is not a lakebed, sinkhole or playa lake located within 200 feet of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
  - The Site Location Map (Figure 1) and information available from the Lea County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution or church located within 300 feet of the Site.

- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
    - No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed by CE.
- Within 1,000 feet of any fresh water well or spring.
    - No freshwater wells or springs located within 1,000 feet of the Site appear in any of the records reviewed by CE.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
    - Based on the property and other records review by CE, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
    - Based on the property and other records reviewed by CE, the Site is not located within an area overlying a subsurface mine.

3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicated the Site is not located within 300 feet of a wetland. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within a “low karst potential” area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the Site is located outside of a 100-year floodplain. Figures 4, 5, and 6 depict the USFWS map, the FEMA floodplain map, and the karst potential map, respectively.

3.4 Closure Criteria Currently Assumed Applicable to the Site

At depths greater than 4’ bgs, the Closure Criteria applicable to the Site will be based on the estimated depth to groundwater, which dictates the least stringent Closure Criteria typically associated with groundwater depths of greater than 100 feet bgs. From the surface to a depth of 4’ bgs, the most stringent Closure Criteria will apply. A summary of the Closure Criteria is provided in the table below and in Table 1.

NMOCD Closure Criteria

Constituent of Concern		Closure Criteria Based on Depth to Groundwater (mg/kg)		
		≤ 50 feet bgs	51 feet to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021 or 8260)		50	50	50
Benzene (EPA 8021 or 8260)		10	10	10

Notes: NA = not applicable

bgs = below ground surface
mg/kg = milligrams per kilogram
GRO = gasoline range organics
DRO = diesel range organics
MRO = motor oil range organics
TPH = total petroleum hydrocarbons
BTEX = benzene, toluene, ethylbenzene, and total xylenes
Green highlighted cells denote applicable Closure Criteria.

4.0 Site Assessment/Characterization Results

As per 19.15.29.11 NMAC, a Site Characterization Report will have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample point locations, and known subsurface features such as utilities is provided as Figure 2.

4.2 Depth to Groundwater

As discussed in Section 3.1, the exact depth to groundwater beneath the Site is unknown; however, a water well was drilled approximately 2,836 feet northeast of the Site in 2023 to a depth of 105', and groundwater was not encountered. Depth to groundwater is estimated be greater than 100' bgs at the Site.

4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 3. No known water wells are located within 0.5 mile of the Site. There were no other water sources, springs, or other sources of freshwater extraction identified within 0.5-mile of the Site.

4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site.

4.5 Initial Delineation Activities

All visibly impacted soil has been excavated and hauled to disposal at J&L Landfarm (J&L).

On January 25, 2024, soil samples (S-1 through S-8) were collected from the bottom and sides of the excavation. Soil samples were placed in clean glass sample jars, properly labeled, immediately placed on ice and hand delivered to Eurofins Environmental Testing (Eurofins) in Midland, Texas under proper chain-of-custody control. All samples were analyzed for total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) SW-846 Method 8015 Modified, for benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX) by EPA SW-846 Method 8021B, and for chlorides by EPA Method 300.

Table 1 provides a summary of the laboratory results, and sample locations are provided on Figure 2. The laboratory report and chain-of-custody documentation are provided in Appendix D. Photographic documentation is provided in Appendix D.

Referring to Table 1, concentrations of BTEX and TPH were reported below the test method detection limits or Closure Criteria in all samples. Concentrations of chlorides exceeded the Closure Criteria at four sidewall sample locations (S-1 and S-3 to S-5), as shown on Figure 2. Soils with chloride exceedances will be addressed in accordance with the Proposed Remediation Workplan discussed in Section 5.0.

4.6 Laboratory Analytical Data Quality Assurance/Quality Control Results

Laboratory data in Job Number 880-46542-1 generated by Eurofins, was reviewed to ensure that reported analytical results met data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. All analytical results are usable for characterization of soil at the Site. The laboratory analytical results are provided as Appendix D.

5.0 Proposed Remediation Workplan

Benzene, BTEX, and TPH concentrations were reported below the test method detection limits or Closure Criteria in all samples. Concentrations of chlorides were reported above the Closure Criteria in four sidewall samples, as listed on Table 1 and shown on Figure 2.

FAE proposes to excavate all impacted soil until confirmation samples collected from the bottom and sidewalls of the excavation report chloride concentrations below the NMOCD Closure Criteria. As initial BTEX and TPH concentrations were below the test method detection or Closure limits, each confirmation sample will be analyzed only for chlorides. Pursuant to 19.15.29.12(D) NMAC, confirmation samples will consist of five-point composite samples, and discrete grab samples will be collected from any wet or discolored areas. The excavated material will be transported under manifest to a NMOCD approved disposal facility.

Upon receipt of laboratory results that all chloride concentrations are below the Closure Criteria, the excavation will be backfilled to grade with non-impacted similar material obtained from a landowner pit. Pursuant to 19.15.29.13 NMAC, the impacted surface areas will be restored to pre-release conditions. Surface grading will be performed to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.

FAE respectfully requests a remediation schedule of 90 days from the date of NMOCD approval of this Remediation Workplan to complete the proposed remediation activities and submit a *Remediation Summary and Closure Report* for NMOCD approval. The Closure Report will summarize remedial activities and confirmation sampling results and will include the final Form C-141.

6.0 Distribution

Copy 1: Mike Bratcher
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Copy 2: Ryan Swift
Forty Acres Energy, LLC
11757 Katy Freeway, Suite 725
Houston, Texas 77079

Grain Environmental

TABLE

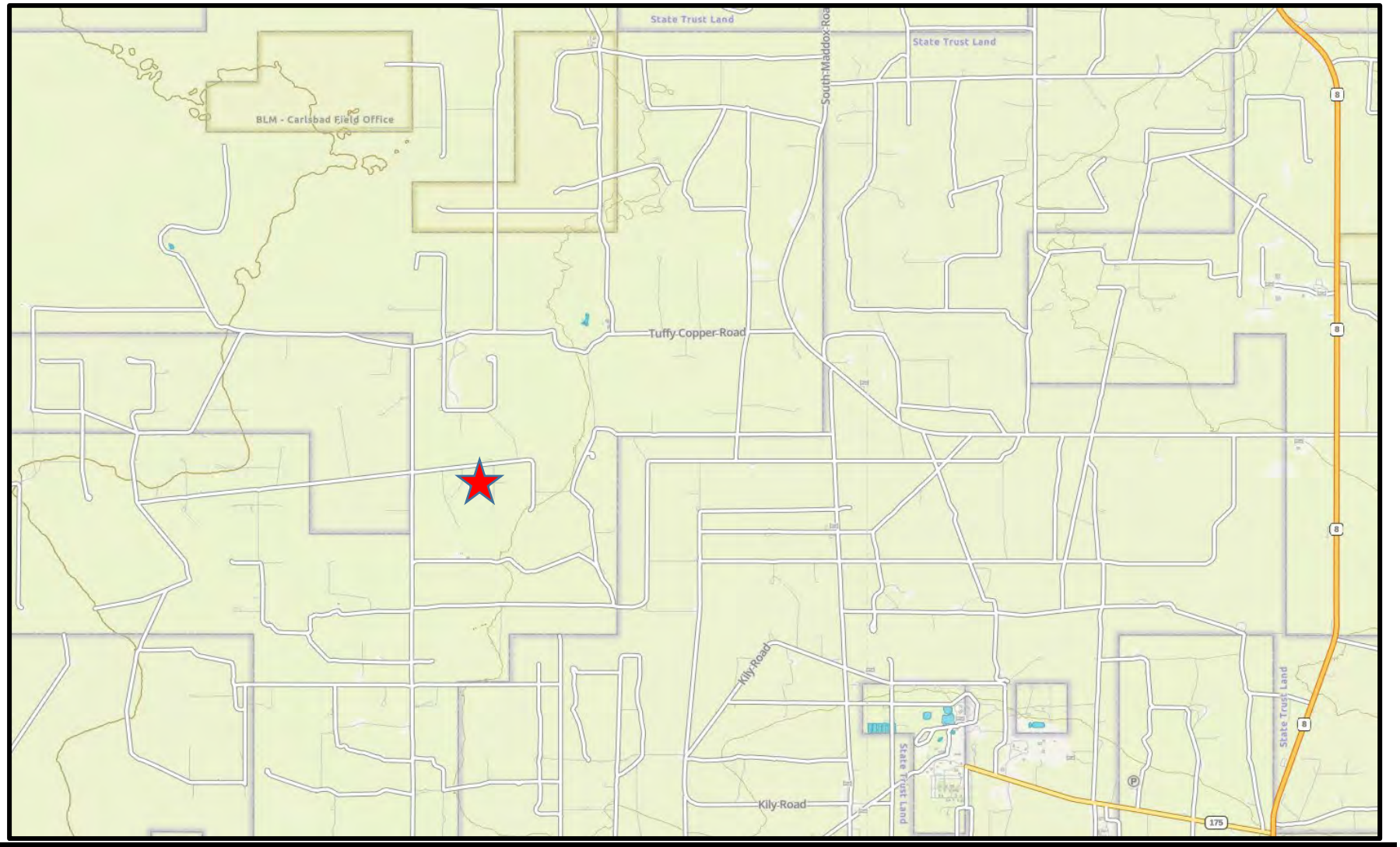
TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FORTY ACRES ENERGY, LLC
WEST EUMONT UNIT #525 (30-025-45482)
NMOCD INCIDENT # nAPP2405856306

Sample ID	Sample Date	Sample Depth	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria							**100**	**10**	**-**	**-**	**-**	**50**	**600**
NMOCD Closure Criteria (>4' bgs)				**GRO + DRO = 1,000**		**-**	**2,500**	**10**	**-**	**-**	**-**	**50**	**20,000**
S-1 (0-4')	07/25/24	0-4'	In Situ	<14.4	**15.3**	<15.0	**15.3 J**	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	**10,900**
S-2 (0-4')	07/25/24	0-4'	In Situ	<14.4	<15.0	<15.0	<15.0	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	**398**
S-3 (0-4')	07/25/24	0-4'	In Situ	<14.5	**89.8**	<15.1	**89.8**	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	**8,780**
S-4 (0-3')	07/25/24	0-3'	In Situ	<14.4	<15.0	<15.0	<15.0	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	**8,540**
S-5 (0-4')	07/25/24	0-4'	In Situ	<14.5	**47.8**	<15.1	**47.8 J**	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	**5,270**
S-6 (2')	07/25/24	2'	In Situ	<14.5	<15.1	<15.1	<15.1	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	**70.8**
S-7 (5')	07/25/24	5'	In Situ	<14.5	**50.9**	<15.1	**50.9**	<0.00140	<0.00201	<0.00110	<0.00230	<0.00230	**116**
S-8 (1')	07/25/24	1'	In Situ	<14.5	<15.1	<15.1	<15.1	<0.00139	<0.00200	<0.00109	<0.00229	<0.00229	**31.8**

Notes:

1. GRO: Gasoline Range Organics
2. DRO: Diesel Range Organics
3. MRO: Motor Oil Range Organics
4. -: No NMOCD Closure Criteria established.
5. bgs: Below Ground Surface
6. Bold indicates the COC was above the appropriate laboratory method/sample detection limit.
7. < indicates the COC was below the appropriate laboratory method/sample detection limit.
8. Bold and yellow highlighting indicates the COC was above the appropriate NMOCD Closure Criteria.
9. J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FIGURES



LEGEND:

Site Location

Base Map From GAIA GPS

Figure 1

Site Location Map

Forty Acres Energy, LLC

West Eumont Unit #525

Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: August 8, 2024

GPS: 32.533204° -103.328195°

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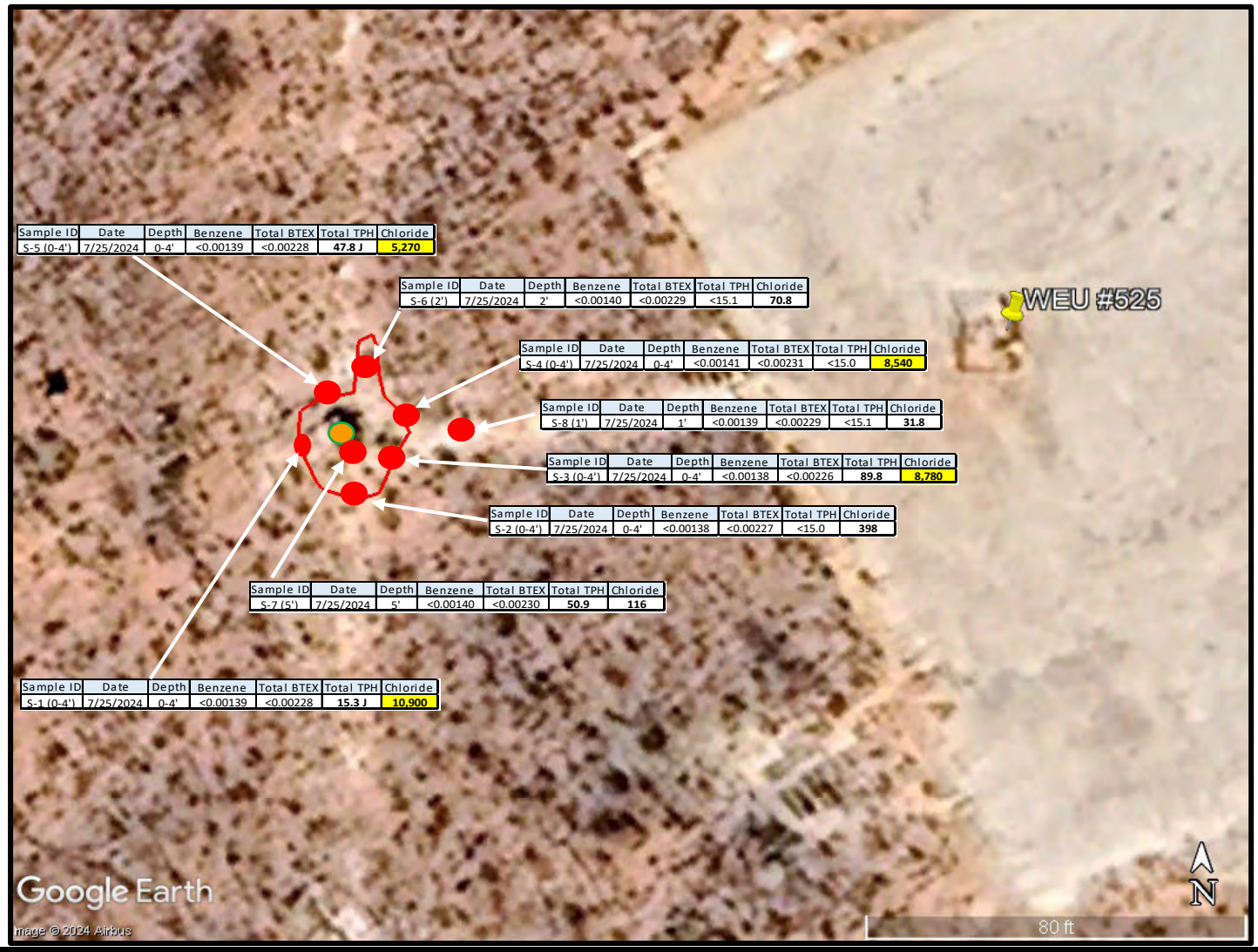


LEGEND:

- Soil Sample Location With Chloride Concentration (mg/kg).
- Release Point
- Excavation Boundary
- Highlighting Indicates Concentration Above the Closure Criteria

Base Map From Google Earth Pro

Figure 2

Soil Sample Location Map

Forty Acres Energy, LLC

West Eumont Unit #525

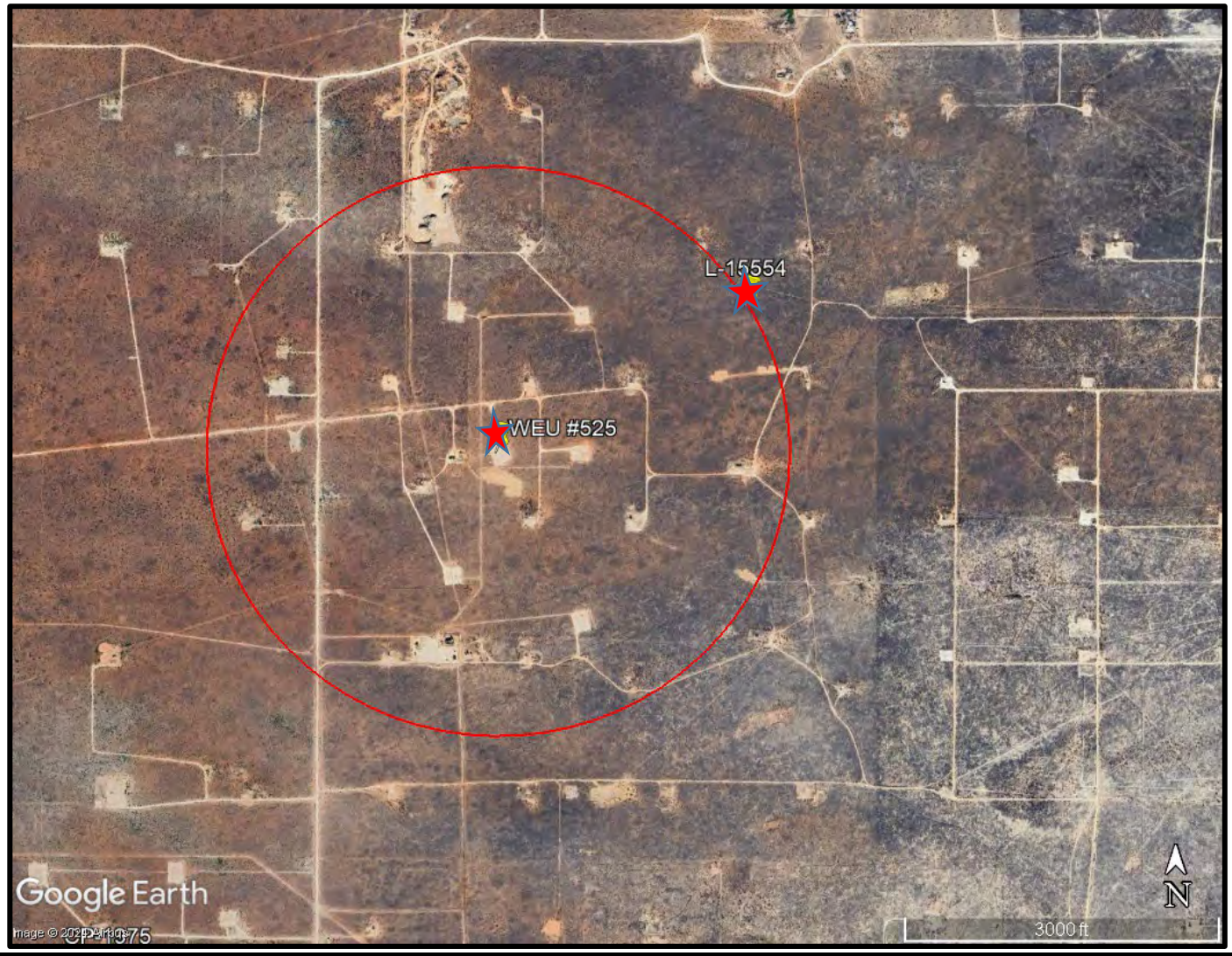
Lea County, New Mexico

Drafted by: CC | Checked by: CC

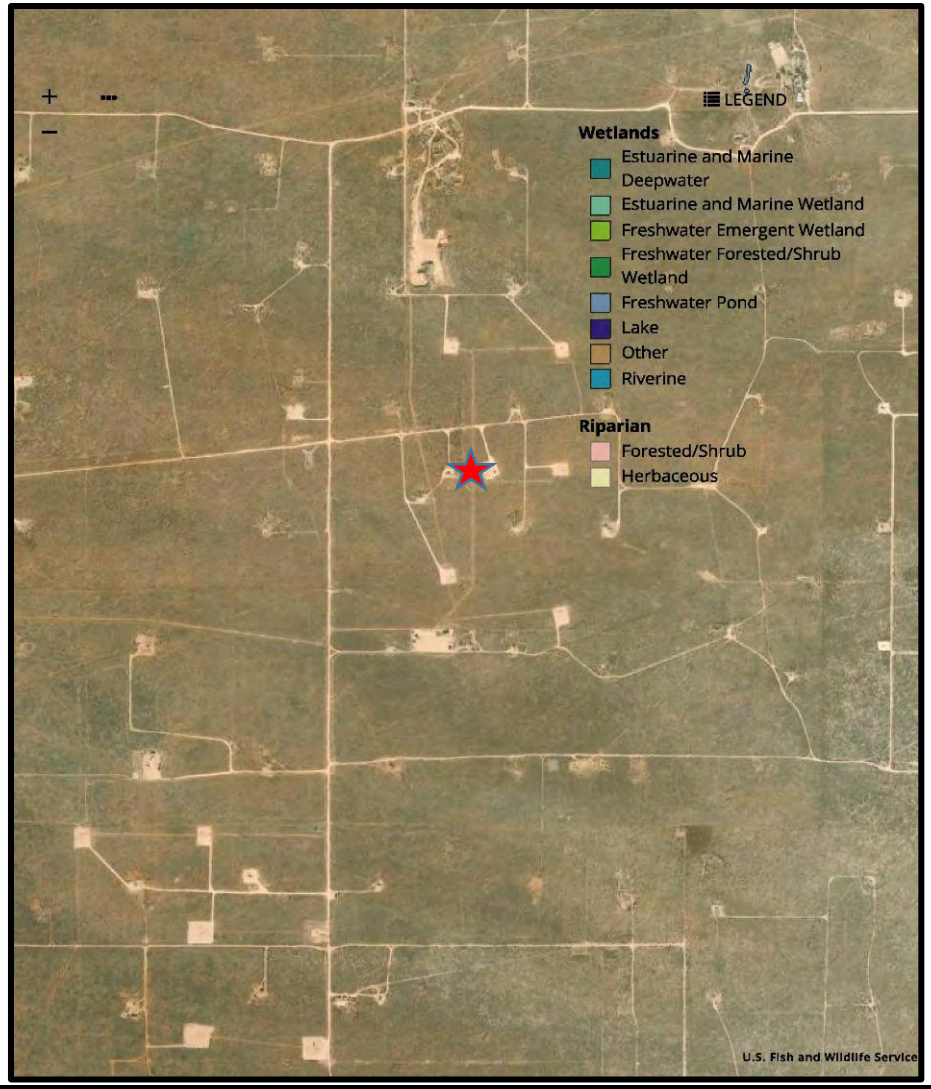
Draft: August 8, 2024

GPS: 32.533204° -103.328195°

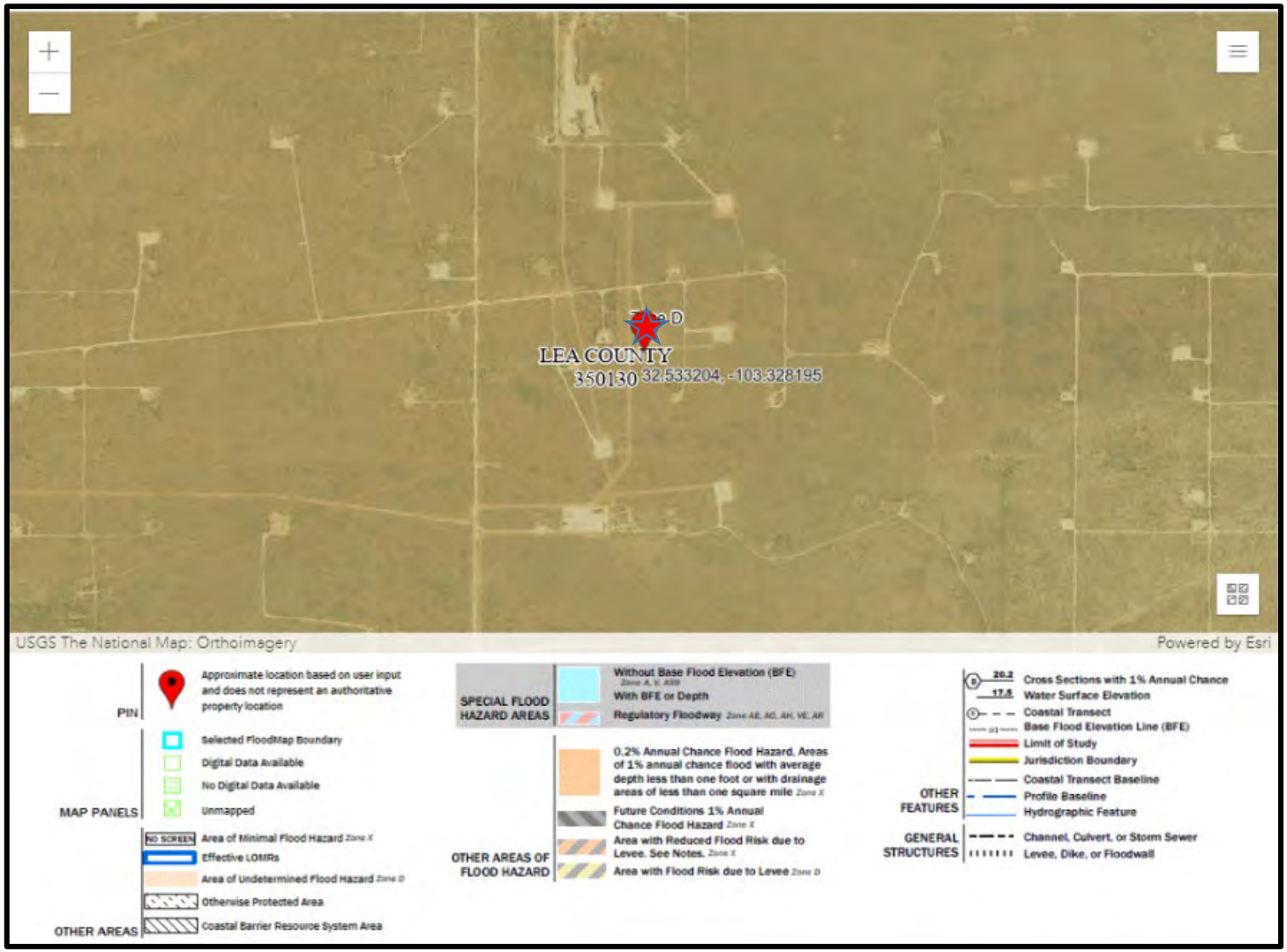
Grain Environmental



LEGEND: Site Location and Water Well Location Base Map From Google Earth Pro	**Figure 3** **Wellhead Protection Area Map** Forty Acres Energy, LLC West Eumont Unit #525 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: August 8, 2024 GPS: 32.533204° -103.328195°



LEGEND: Site Location Base Map From US Fish & Wildlife Service	**Figure 4** **National Wetlands Inventory Map** Forty Acres Energy, LLC West Eumont Unit #525 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: August 8, 2024 GPS: 32.533204° -103.328195°



LEGEND:

Site Location

Base Map From FEMA

Figure 5

FEMA Floodplain Map

Forty Acres Energy, LLC

West Eumont Unit #525

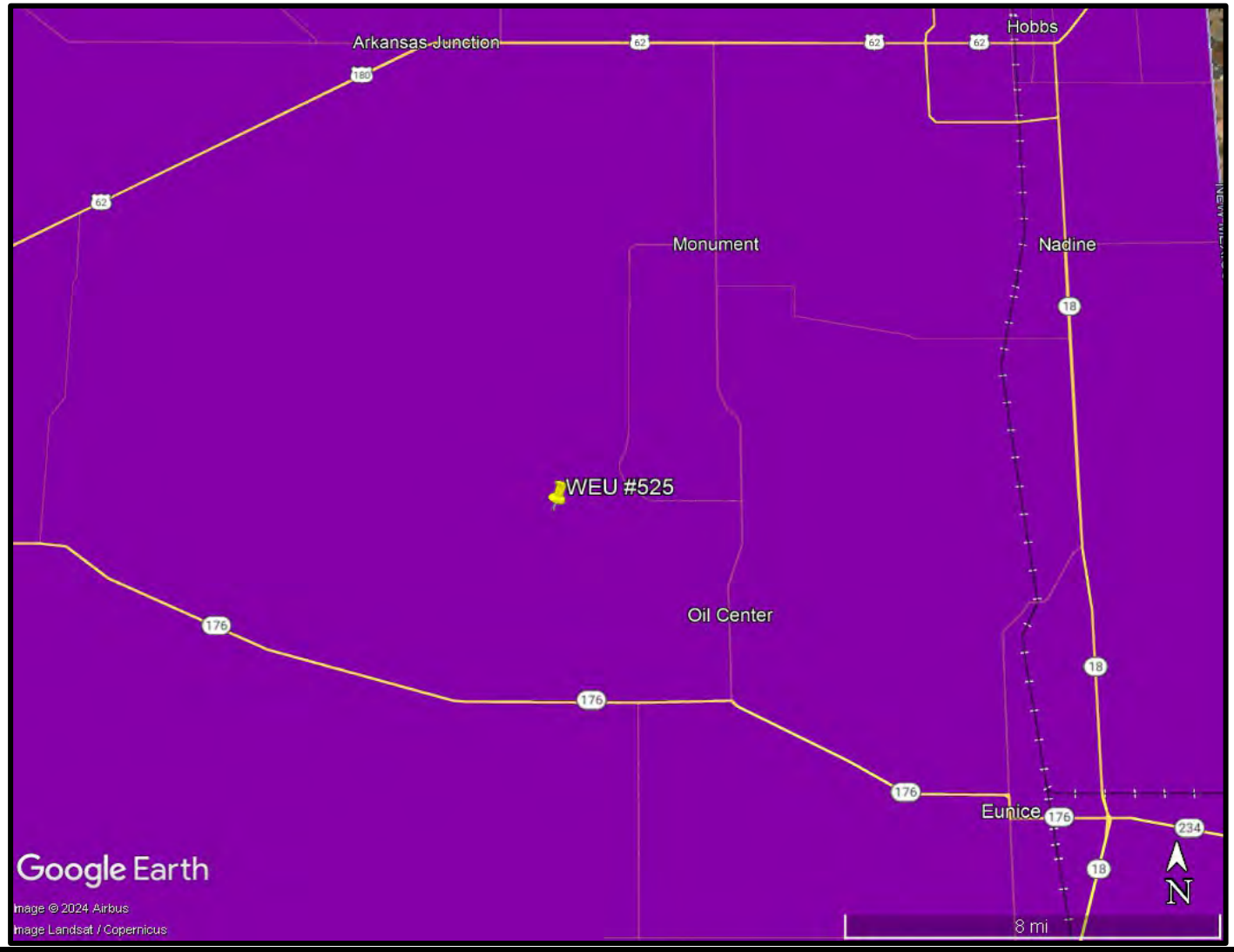
Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: August 8, 2024

GPS: 32.533204° -103.328195°

Grain Environmental



LEGEND: Low Karst Potential Medium Karst Potential High Karst Potential Base Map From Google Earth Pro and BLM	**Figure 6** **Karst Potential Map** Forty Acres Energy, LLC West Eumont Unit #525 Lea County, New Mexico	Drafted by: CC | Checked by: CC Draft: August 8, 2024 GPS: 32.533204° -103.328195°

Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

Released Volume Calculation

Length		25	feet
Width		20	feet
Thickness		2	in
	Gals		Bbls
	1000	23.80952	Est. Total Bbls Released

Volume = L*W*T

Total Released Volume =	1000	gallons (US, dry)
	23.81	bbls

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 318452

QUESTIONS

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 318452
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2405856306**
Incident Name	**NAPP2405856306 WEST EUMONT UNIT #525 @ 30-025-45482**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Received**
Incident Well	**[30-025-45482] WEST EUMONT UNIT #525**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	West Eumont Unit #525
Date Release Discovered	02/22/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Produced Water | Released: 22 BBL | Recovered: 17 BBL | Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 318452
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Alexis Bolanos Title: Production & Regulatory Analyst Email: alex@faenergyus.com Date: 02/28/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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QUESTIONS (continued)

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 318452
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	*Not answered.*
What method was used to determine the depth to ground water	*Not answered.*
Did this release impact groundwater or surface water	*Not answered.*
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	*Not answered.*
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	*Not answered.*
An occupied permanent residence, school, hospital, institution, or church	*Not answered.*
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	*Not answered.*
Any other fresh water well or spring	*Not answered.*
Incorporated municipal boundaries or a defined municipal fresh water well field	*Not answered.*
A wetland	*Not answered.*
A subsurface mine	*Not answered.*
An (non-karst) unstable area	*Not answered.*
Categorize the risk of this well / site being in a karst geology	*Not answered.*
A 100-year floodplain	*Not answered.*
Did the release impact areas not on an exploration, development, production, or storage site	*Not answered.*

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	No
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 318452
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	2/28/2024

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2405454076
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Forty Acres Energy, LLC	OGRID	371416
Contact Name	Alex Bolanos	Contact Telephone	(832) 689-3788
Contact email	alex@faenergyus.com	Incident # *(assigned by OCD)*	nAPP2405856306
Contact mailing address	11757 Katy Fwy, Houston, TX 77079173		

Location of Release Source

Latitude 32.533204 Longitude -103.328195
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	West Eumont Unit #525	Site Type	Well
Date Release Discovered	02/22/2024	API# *(if applicable)*	30-025-45482

Unit Letter	Section	Township	Range	County
F	35	20S	36E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 22	Volume Recovered (bbls) 17
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Flow line release

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2405856306
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes. James Martinez to Mike Bratcher on 2/22/24

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Cindy Crain Title: Agent for Forty Acres Energy, LLC

Signature: Cindy Crain Date: 8/9/24

email: cindy.crain@gmail.com Telephone: (575) 441-7244

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2405856306
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2405856306
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Cindy Crain Title: Agent for Forty Acres Energy, LLC

Signature: Cindy Crain Date: 08/09/2024

email: cindy.crain@gmail.com Telephone: (575) 441-7244

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2405856306
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Cindy Crain Title: Agent for Forty Acres Energy, LLC

Signature: Cindy Crain Date: 8/9/24

email: cindy.crain@gmail.com Telephone: (575) 441-7244

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

Appendix B: NMOCD Correspondence

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Tuesday, July 30, 2024 4:09 PM
To: Alex Bolanos <alex@faenergyus.com>
Subject: Re: [EXTERNAL] Forty Acres Energy C-141 Extension Request

Good afternoon Alex,

Thank you for the inquiry. Your time extension is approved. Remediation Due date has been updated to August 20, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | nelson.velez@emnrd.nm.gov

http://www.emnrd.nm.gov/ocd

From: Alex Bolanos <alex@faenergyus.com>
Sent: Friday, July 12, 2024 10:01 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Forty Acres Energy C-141 Extension Request

Thank you Nelson for providing additional time on these. We will be working them over the next few weeks. We did get a characterization submitted on the #410 & #210. There was one in addition to the ones I requested an extension on last week that we need a little more time on. Please see below.

Thanks,
Alex

Incident Number	Location	Engineer	Operational Status	Filing Status	Current OCD Due Date	Surface Owner	En
nAPP2405856306	WEU 525	Ryan	CLEANED UP SPILL	C-141 Notification Sent	5/22/2024	Private	Cindy putting together Char report. Hiring new

Appendix C: Well Record and Log

32.537111, -103.320528

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.): Pod-1	WELL TAG ID NO.:	OSE FILE NO(S.): L-15554
WELL OWNER NAME(S): Forty Acres Energy		PHONE (OPTIONAL): 346-254-9544
WELL OWNER MAILING ADDRESS: 11757 Katy Freeway		CITY: Houston STATE: TX ZIP: 77079

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	13.6	N
	LONGITUDE	-103	19	13.9	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER			NAME OF WELL DRILLING COMPANY
1839	Boyd Coffey			Coffey Drilling
DRILLING STARTED	**DRILLING ENDED**	**DEPTH OF COMPLETED WELL (FT)**	**BORE HOLE DEPTH (FT)**	**DEPTH WATER FIRST ENCOUNTERED (FT)**
8-25-2023	8-25-2023	105	105	NA

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): NA

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	100	6.5	2 3/8	Threaded	2	SCh 40	
100	105	6.5	2 3/8	Threaded	2	SCH 40	0.035

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	6.5	Bentonite Quick grout	3.5	Tremie
20	105	6.5	Native fill	22	Pour

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	6	6	Tan Top soil	Y ✓ N	
6	48	42	White Caliche	Y ✓ N	
48	96	48	Tan Soft SandStone	Y ✓ N	
96	100	4	Red Clay	Y ✓ N	
100	105	5	Course sand and gravel	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☑ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

SIGNATURE OF DRILLER / PRINT SIGNEE NAME DATE

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

Appendix D: Laboratory Report and Chain-of-Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Cindy Crain
Crain Environmental
2925 E. 17th St.
Odessa, Texas 79761

Generated 8/1/2024 12:26:56 PM Revision 1

JOB DESCRIPTION

West Eumont Unit #525

JOB NUMBER

880-46542-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

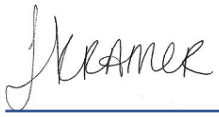
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
8/1/2024 12:26:56 PM
Revision 1

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Laboratory Job ID: 880-46542-1

Table of Contents

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Definitions/Glossary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Crain Environmental
Project: West Eumont Unit #525

Job ID: 880-46542-1

Job ID: 880-46542-1 Eurofins Midland

Job Narrative
880-46542-1

REVISION

The report being provided is a revision of the original report sent on 7/31/2024. The report (revision 1) is being revised due to Per client email, requesting project info to be added to report.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/26/2024 1:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.0°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: S-1 (0-4') (880-46542-1), S-2 (0-4') (880-46542-2), S-3 (0-4') (880-46542-3), S-4 (0-3') (880-46542-4), S-5 (0-4') (880-46542-5), S-6 (2') (880-46542-6), S-7 (5') (880-46542-7) and S-8 (1') (880-46542-8).

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-86819/3-A) and (MB 880-86819/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-1 (0-4')

Date Collected: 07/25/24 12:20
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Lab Sample ID: 880-46542-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		07/29/24 09:18	07/29/24 12:32	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		07/29/24 09:18	07/29/24 12:32	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		07/29/24 09:18	07/29/24 12:32	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		07/29/24 09:18	07/29/24 12:32	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		07/29/24 09:18	07/29/24 12:32	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		07/29/24 09:18	07/29/24 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:32*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			07/29/24 12:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**15.3**	**J**	49.6	15.0	mg/Kg			07/30/24 15:44	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.4	U	49.6	14.4	mg/Kg		07/26/24 15:33	07/30/24 15:44	1
Diesel Range Organics (Over C10-C28)	**15.3**	**J**	49.6	15.0	mg/Kg		07/26/24 15:33	07/30/24 15:44	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.6	15.0	mg/Kg		07/26/24 15:33	07/30/24 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*07/26/24 15:33*	*07/30/24 15:44*	*1*
o-Terphenyl	*82*		*70 - 130*	*07/26/24 15:33*	*07/30/24 15:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10900**		99.4	7.85	mg/Kg			07/30/24 21:10	20

Client Sample ID: S-2 (0-4')

Date Collected: 07/25/24 12:25
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Lab Sample ID: 880-46542-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00199	0.00138	mg/Kg		07/29/24 09:18	07/29/24 12:53	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		07/29/24 09:18	07/29/24 12:53	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		07/29/24 09:18	07/29/24 12:53	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		07/29/24 09:18	07/29/24 12:53	1
o-Xylene	<0.00157	U	0.00199	0.00157	mg/Kg		07/29/24 09:18	07/29/24 12:53	1
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		07/29/24 09:18	07/29/24 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:53*	*1*

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-2 (0-4')

Lab Sample ID: 880-46542-2
Matrix: Solid
Date Collected: 07/25/24 12:25
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			07/29/24 12:53	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.7	15.0	mg/Kg			07/30/24 16:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.4	U	49.7	14.4	mg/Kg		07/26/24 15:33	07/30/24 16:01	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.7	15.0	mg/Kg		07/26/24 15:33	07/30/24 16:01	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		07/26/24 15:33	07/30/24 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:01*	*1*
o-Terphenyl	*78*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**398**		4.96	0.392	mg/Kg			07/30/24 21:33	1

Client Sample ID: S-3 (0-4')

Lab Sample ID: 880-46542-3
Matrix: Solid
Date Collected: 07/25/24 12:30
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00198	0.00138	mg/Kg		07/29/24 09:18	07/29/24 13:13	1
Toluene	<0.00198	U	0.00198	0.00198	mg/Kg		07/29/24 09:18	07/29/24 13:13	1
Ethylbenzene	<0.00108	U	0.00198	0.00108	mg/Kg		07/29/24 09:18	07/29/24 13:13	1
m-Xylene & p-Xylene	<0.00226	U	0.00396	0.00226	mg/Kg		07/29/24 09:18	07/29/24 13:13	1
o-Xylene	<0.00157	U	0.00198	0.00157	mg/Kg		07/29/24 09:18	07/29/24 13:13	1
Xylenes, Total	<0.00226	U	0.00396	0.00226	mg/Kg		07/29/24 09:18	07/29/24 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:13*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00226	U	0.00396	0.00226	mg/Kg			07/29/24 13:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**89.8**		49.8	15.1	mg/Kg			07/30/24 16:32	1

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-3 (0-4')

Lab Sample ID: 880-46542-3
Matrix: Solid
Date Collected: 07/25/24 12:30
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		07/26/24 15:33	07/30/24 16:32	1
Diesel Range Organics (Over C10-C28)	**89.8**		49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 16:32	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:32*	*1*
o-Terphenyl	*85*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8780**		99.6	7.87	mg/Kg			07/30/24 21:41	20

Client Sample ID: S-4 (0-3')

Lab Sample ID: 880-46542-4
Matrix: Solid
Date Collected: 07/25/24 12:35
Date Received: 07/26/24 13:40
Sample Depth: 0-3'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00141	U	0.00202	0.00141	mg/Kg		07/29/24 09:18	07/29/24 13:34	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		07/29/24 09:18	07/29/24 13:34	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		07/29/24 09:18	07/29/24 13:34	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		07/29/24 09:18	07/29/24 13:34	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		07/29/24 09:18	07/29/24 13:34	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		07/29/24 09:18	07/29/24 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:34*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00231	U	0.00404	0.00231	mg/Kg			07/29/24 13:34	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.7	15.0	mg/Kg			07/30/24 16:48	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.4	U	49.7	14.4	mg/Kg		07/26/24 15:33	07/30/24 16:48	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.7	15.0	mg/Kg		07/26/24 15:33	07/30/24 16:48	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		07/26/24 15:33	07/30/24 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:48*	*1*
o-Terphenyl	*71*		*70 - 130*	*07/26/24 15:33*	*07/30/24 16:48*	*1*

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-4 (0-3')

Lab Sample ID: 880-46542-4
Matrix: Solid
Date Collected: 07/25/24 12:35
Date Received: 07/26/24 13:40
Sample Depth: 0-3'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8540**		49.5	3.91	mg/Kg			07/30/24 21:49	10

Client Sample ID: S-5 (0-4')

Lab Sample ID: 880-46542-5
Matrix: Solid
Date Collected: 07/25/24 12:40
Date Received: 07/26/24 13:40
Sample Depth: 0-4'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		07/29/24 09:18	07/29/24 13:54	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		07/29/24 09:18	07/29/24 13:54	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		07/29/24 09:18	07/29/24 13:54	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		07/29/24 09:18	07/29/24 13:54	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		07/29/24 09:18	07/29/24 13:54	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		07/29/24 09:18	07/29/24 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:54*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/29/24 09:18*	*07/29/24 13:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			07/29/24 13:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**47.8**	**J**	49.8	15.1	mg/Kg			07/30/24 17:03	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		07/26/24 15:33	07/30/24 17:03	1
Diesel Range Organics (Over C10-C28)	**47.8**	**J**	49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:03	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:03*	*1*
o-Terphenyl	*80*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5270**		50.4	3.98	mg/Kg			07/30/24 21:57	10

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-6 (2')

Date Collected: 07/25/24 12:45
Date Received: 07/26/24 13:40
Sample Depth: 2'

Lab Sample ID: 880-46542-6
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		07/29/24 09:18	07/29/24 14:14	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		07/29/24 09:18	07/29/24 14:14	1
Ethylbenzene	<0.00109	U	0.00201	0.00109	mg/Kg		07/29/24 09:18	07/29/24 14:14	1
m-Xylene & p-Xylene	<0.00229	U	0.00402	0.00229	mg/Kg		07/29/24 09:18	07/29/24 14:14	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		07/29/24 09:18	07/29/24 14:14	1
Xylenes, Total	<0.00229	U	0.00402	0.00229	mg/Kg		07/29/24 09:18	07/29/24 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:14*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00402	0.00229	mg/Kg			07/29/24 14:14	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.9	15.1	mg/Kg			07/30/24 17:19	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.9	14.5	mg/Kg		07/26/24 15:33	07/30/24 17:19	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.9	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:19	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:19*	*1*
o-Terphenyl	*78*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70.8**		4.97	0.393	mg/Kg			07/30/24 22:21	1

Client Sample ID: S-7 (5')

Date Collected: 07/25/24 12:50
Date Received: 07/26/24 13:40
Sample Depth: 5'

Lab Sample ID: 880-46542-7
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		07/29/24 09:18	07/29/24 14:35	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		07/29/24 09:18	07/29/24 14:35	1
Ethylbenzene	<0.00110	U	0.00201	0.00110	mg/Kg		07/29/24 09:18	07/29/24 14:35	1
m-Xylene & p-Xylene	<0.00230	U	0.00402	0.00230	mg/Kg		07/29/24 09:18	07/29/24 14:35	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		07/29/24 09:18	07/29/24 14:35	1
Xylenes, Total	<0.00230	U	0.00402	0.00230	mg/Kg		07/29/24 09:18	07/29/24 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:35*	*1*

Eurofins Midland

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-7 (5')

Date Collected: 07/25/24 12:50
Date Received: 07/26/24 13:40
Sample Depth: 5'

Lab Sample ID: 880-46542-7
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00230	U	0.00402	0.00230	mg/Kg			07/29/24 14:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**50.9**		50.0	15.1	mg/Kg			07/30/24 17:34	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		07/26/24 15:33	07/30/24 17:34	1
Diesel Range Organics (Over C10-C28)	**50.9**		50.0	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:34	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:34*	*1*
o-Terphenyl	*86*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**116**		5.01	0.396	mg/Kg			07/30/24 22:29	1

Client Sample ID: S-8 (1')

Date Collected: 07/25/24 12:55
Date Received: 07/26/24 13:40
Sample Depth: 1'

Lab Sample ID: 880-46542-8
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		07/29/24 09:18	07/29/24 14:55	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		07/29/24 09:18	07/29/24 14:55	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		07/29/24 09:18	07/29/24 14:55	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		07/29/24 09:18	07/29/24 14:55	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		07/29/24 09:18	07/29/24 14:55	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		07/29/24 09:18	07/29/24 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:55*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*07/29/24 09:18*	*07/29/24 14:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00400	0.00229	mg/Kg			07/29/24 14:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.8	15.1	mg/Kg			07/30/24 17:49	1

Client Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-8 (1')

Date Collected: 07/25/24 12:55
Date Received: 07/26/24 13:40
Sample Depth: 1'

Lab Sample ID: 880-46542-8

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		07/26/24 15:33	07/30/24 17:49	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:49	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		07/26/24 15:33	07/30/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:49*	*1*
o-Terphenyl	*86*		*70 - 130*	*07/26/24 15:33*	*07/30/24 17:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.8**		5.05	0.399	mg/Kg			07/30/24 22:36	1

Surrogate Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-46542-1	S-1 (0-4')	121	87
880-46542-2	S-2 (0-4')	120	86
880-46542-3	S-3 (0-4')	119	86
880-46542-4	S-4 (0-3')	121	86
880-46542-5	S-5 (0-4')	123	87
880-46542-6	S-6 (2')	122	85
880-46542-7	S-7 (5')	122	87
880-46542-8	S-8 (1')	121	86
880-46546-A-1-D MS	Matrix Spike	117	90
880-46546-A-1-E MSD	Matrix Spike Duplicate	117	90
LCS 880-86874/1-A	Lab Control Sample	123	92
LCSD 880-86874/2-A	Lab Control Sample Dup	116	90
MB 880-86874/5-A	Method Blank	117	81

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-46540-A-1-C MS	Matrix Spike	111	90
880-46540-A-1-D MSD	Matrix Spike Duplicate	110	89
880-46542-1	S-1 (0-4')	90	82
880-46542-2	S-2 (0-4')	88	78
880-46542-3	S-3 (0-4')	92	85
880-46542-4	S-4 (0-3')	79	71
880-46542-5	S-5 (0-4')	89	80
880-46542-6	S-6 (2')	90	78
880-46542-7	S-7 (5')	94	86
880-46542-8	S-8 (1')	99	86
LCS 880-86819/2-A	Lab Control Sample	116	96
LCSD 880-86819/3-A	Lab Control Sample Dup	132 S1+	111
MB 880-86819/1-A	Method Blank	95	163 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-86874/5-A
Matrix: Solid
Analysis Batch: 86860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 86874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		07/29/24 09:18	07/29/24 12:10	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		07/29/24 09:18	07/29/24 12:10	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		07/29/24 09:18	07/29/24 12:10	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		07/29/24 09:18	07/29/24 12:10	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		07/29/24 09:18	07/29/24 12:10	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		07/29/24 09:18	07/29/24 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:10*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*07/29/24 09:18*	*07/29/24 12:10*	*1*

Lab Sample ID: LCS 880-86874/1-A
Matrix: Solid
Analysis Batch: 86860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1161		mg/Kg		116	70 - 130
Toluene	0.100	0.1109		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1075		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2334		mg/Kg		117	70 - 130
o-Xylene	0.100	0.1167		mg/Kg		117	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-86874/2-A
Matrix: Solid
Analysis Batch: 86860

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 86874

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1089		mg/Kg		109	70 - 130	6	35
Toluene	0.100	0.1040		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1008		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2195		mg/Kg		110	70 - 130	6	35
o-Xylene	0.100	0.1103		mg/Kg		110	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-46546-A-1-D MS
Matrix: Solid
Analysis Batch: 86860

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 86874

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00141	U	0.100	0.1153		mg/Kg		115	70 - 130
Toluene	<0.00202	U	0.100	0.1098		mg/Kg		110	70 - 130

QC Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-46546-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 86860 — **Prep Batch: 86874**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00110	U	0.100	0.1059		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	<0.00231	U	0.200	0.2303		mg/Kg		115	70 - 130
o-Xylene	<0.00160	U	0.100	0.1150		mg/Kg		115	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-46546-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 86860 — **Prep Batch: 86874**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00141	U	0.100	0.1077		mg/Kg		108	70 - 130	7	35
Toluene	<0.00202	U	0.100	0.1021		mg/Kg		102	70 - 130	7	35
Ethylbenzene	<0.00110	U	0.100	0.09879		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene	<0.00231	U	0.200	0.2141		mg/Kg		107	70 - 130	7	35
o-Xylene	<0.00160	U	0.100	0.1077		mg/Kg		108	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-86819/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 86941 — **Prep Batch: 86819**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		07/26/24 15:33	07/30/24 10:25	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		07/26/24 15:33	07/30/24 10:25	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		07/26/24 15:33	07/30/24 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*07/26/24 15:33*	*07/30/24 10:25*	*1*
o-Terphenyl	*163*	*S1+*	*70 - 130*	*07/26/24 15:33*	*07/30/24 10:25*	*1*

Lab Sample ID: LCS 880-86819/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 86941 — **Prep Batch: 86819**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1097		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1048		mg/Kg		105	70 - 130

QC Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-86819/2-A
Matrix: Solid
Analysis Batch: 86941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86819

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-86819/3-A
Matrix: Solid
Analysis Batch: 86941

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 86819

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1084		mg/Kg		108	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1122		mg/Kg		112	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	132	S1+	70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: 880-46540-A-1-C MS
Matrix: Solid
Analysis Batch: 86941

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 86819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	996	1111		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)	<15.1	U	996	981.2		mg/Kg		99	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 880-46540-A-1-D MSD
Matrix: Solid
Analysis Batch: 86941

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 86819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	996	1101		mg/Kg		111	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<15.1	U	996	928.1		mg/Kg		93	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	89		70 - 130

QC Sample Results

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-86856/1-A
Matrix: Solid
Analysis Batch: 86912

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			07/30/24 20:46	1

Lab Sample ID: LCS 880-86856/2-A
Matrix: Solid
Analysis Batch: 86912

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	262.9		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-86856/3-A
Matrix: Solid
Analysis Batch: 86912

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	265.0		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 880-46542-1 MS
Matrix: Solid
Analysis Batch: 86912

Client Sample ID: S-1 (0-4')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	10900		4970	15890		mg/Kg		100	90 - 110		

Lab Sample ID: 880-46542-1 MSD
Matrix: Solid
Analysis Batch: 86912

Client Sample ID: S-1 (0-4')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10900		4970	15950		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

GC VOA

Analysis Batch: 86860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	8021B	86874
880-46542-2	S-2 (0-4')	Total/NA	Solid	8021B	86874
880-46542-3	S-3 (0-4')	Total/NA	Solid	8021B	86874
880-46542-4	S-4 (0-3')	Total/NA	Solid	8021B	86874
880-46542-5	S-5 (0-4')	Total/NA	Solid	8021B	86874
880-46542-6	S-6 (2')	Total/NA	Solid	8021B	86874
880-46542-7	S-7 (5')	Total/NA	Solid	8021B	86874
880-46542-8	S-8 (1')	Total/NA	Solid	8021B	86874
MB 880-86874/5-A	Method Blank	Total/NA	Solid	8021B	86874
LCS 880-86874/1-A	Lab Control Sample	Total/NA	Solid	8021B	86874
LCSD 880-86874/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	86874
880-46546-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	86874
880-46546-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	86874

Prep Batch: 86874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	5035	
880-46542-2	S-2 (0-4')	Total/NA	Solid	5035	
880-46542-3	S-3 (0-4')	Total/NA	Solid	5035	
880-46542-4	S-4 (0-3')	Total/NA	Solid	5035	
880-46542-5	S-5 (0-4')	Total/NA	Solid	5035	
880-46542-6	S-6 (2')	Total/NA	Solid	5035	
880-46542-7	S-7 (5')	Total/NA	Solid	5035	
880-46542-8	S-8 (1')	Total/NA	Solid	5035	
MB 880-86874/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-86874/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-86874/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-46546-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-46546-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 87023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	Total BTEX	
880-46542-2	S-2 (0-4')	Total/NA	Solid	Total BTEX	
880-46542-3	S-3 (0-4')	Total/NA	Solid	Total BTEX	
880-46542-4	S-4 (0-3')	Total/NA	Solid	Total BTEX	
880-46542-5	S-5 (0-4')	Total/NA	Solid	Total BTEX	
880-46542-6	S-6 (2')	Total/NA	Solid	Total BTEX	
880-46542-7	S-7 (5')	Total/NA	Solid	Total BTEX	
880-46542-8	S-8 (1')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 86819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	8015NM Prep	
880-46542-2	S-2 (0-4')	Total/NA	Solid	8015NM Prep	
880-46542-3	S-3 (0-4')	Total/NA	Solid	8015NM Prep	
880-46542-4	S-4 (0-3')	Total/NA	Solid	8015NM Prep	
880-46542-5	S-5 (0-4')	Total/NA	Solid	8015NM Prep	
880-46542-6	S-6 (2')	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

GC Semi VOA (Continued)

Prep Batch: 86819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-7	S-7 (5')	Total/NA	Solid	8015NM Prep	
880-46542-8	S-8 (1')	Total/NA	Solid	8015NM Prep	
MB 880-86819/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-86819/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-86819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-46540-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-46540-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 86941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	8015B NM	86819
880-46542-2	S-2 (0-4')	Total/NA	Solid	8015B NM	86819
880-46542-3	S-3 (0-4')	Total/NA	Solid	8015B NM	86819
880-46542-4	S-4 (0-3')	Total/NA	Solid	8015B NM	86819
880-46542-5	S-5 (0-4')	Total/NA	Solid	8015B NM	86819
880-46542-6	S-6 (2')	Total/NA	Solid	8015B NM	86819
880-46542-7	S-7 (5')	Total/NA	Solid	8015B NM	86819
880-46542-8	S-8 (1')	Total/NA	Solid	8015B NM	86819
MB 880-86819/1-A	Method Blank	Total/NA	Solid	8015B NM	86819
LCS 880-86819/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	86819
LCSD 880-86819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	86819
880-46540-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	86819
880-46540-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	86819

Analysis Batch: 87100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Total/NA	Solid	8015 NM	
880-46542-2	S-2 (0-4')	Total/NA	Solid	8015 NM	
880-46542-3	S-3 (0-4')	Total/NA	Solid	8015 NM	
880-46542-4	S-4 (0-3')	Total/NA	Solid	8015 NM	
880-46542-5	S-5 (0-4')	Total/NA	Solid	8015 NM	
880-46542-6	S-6 (2')	Total/NA	Solid	8015 NM	
880-46542-7	S-7 (5')	Total/NA	Solid	8015 NM	
880-46542-8	S-8 (1')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 86856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Soluble	Solid	DI Leach	
880-46542-2	S-2 (0-4')	Soluble	Solid	DI Leach	
880-46542-3	S-3 (0-4')	Soluble	Solid	DI Leach	
880-46542-4	S-4 (0-3')	Soluble	Solid	DI Leach	
880-46542-5	S-5 (0-4')	Soluble	Solid	DI Leach	
880-46542-6	S-6 (2')	Soluble	Solid	DI Leach	
880-46542-7	S-7 (5')	Soluble	Solid	DI Leach	
880-46542-8	S-8 (1')	Soluble	Solid	DI Leach	
MB 880-86856/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-86856/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-86856/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-46542-1 MS	S-1 (0-4')	Soluble	Solid	DI Leach	

QC Association Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

HPLC/IC (Continued)

Leach Batch: 86856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1 MSD	S-1 (0-4')	Soluble	Solid	DI Leach	

Analysis Batch: 86912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-46542-1	S-1 (0-4')	Soluble	Solid	300.0	86856
880-46542-2	S-2 (0-4')	Soluble	Solid	300.0	86856
880-46542-3	S-3 (0-4')	Soluble	Solid	300.0	86856
880-46542-4	S-4 (0-3')	Soluble	Solid	300.0	86856
880-46542-5	S-5 (0-4')	Soluble	Solid	300.0	86856
880-46542-6	S-6 (2')	Soluble	Solid	300.0	86856
880-46542-7	S-7 (5')	Soluble	Solid	300.0	86856
880-46542-8	S-8 (1')	Soluble	Solid	300.0	86856
MB 880-86856/1-A	Method Blank	Soluble	Solid	300.0	86856
LCS 880-86856/2-A	Lab Control Sample	Soluble	Solid	300.0	86856
LCSD 880-86856/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	86856
880-46542-1 MS	S-1 (0-4')	Soluble	Solid	300.0	86856
880-46542-1 MSD	S-1 (0-4')	Soluble	Solid	300.0	86856

Lab Chronicle

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-1 (0-4')
Date Collected: 07/25/24 12:20
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 12:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 15:44	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 15:44	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	86912	07/30/24 21:10	CH	EET MID

Client Sample ID: S-2 (0-4')
Date Collected: 07/25/24 12:25
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 12:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 16:01	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86912	07/30/24 21:33	CH	EET MID

Client Sample ID: S-3 (0-4')
Date Collected: 07/25/24 12:30
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 13:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 13:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 16:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 16:32	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	86912	07/30/24 21:41	CH	EET MID

Client Sample ID: S-4 (0-3')
Date Collected: 07/25/24 12:35
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 13:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 13:34	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Client Sample ID: S-4 (0-3')
Date Collected: 07/25/24 12:35
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			87100	07/30/24 16:48	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 16:48	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	86912	07/30/24 21:49	CH	EET MID

Client Sample ID: S-5 (0-4')
Date Collected: 07/25/24 12:40
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 13:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 13:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 17:03	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 17:03	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	86912	07/30/24 21:57	CH	EET MID

Client Sample ID: S-6 (2')
Date Collected: 07/25/24 12:45
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 14:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 14:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 17:19	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 17:19	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86912	07/30/24 22:21	CH	EET MID

Client Sample ID: S-7 (5')
Date Collected: 07/25/24 12:50
Date Received: 07/26/24 13:40

Lab Sample ID: 880-46542-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 14:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 14:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 17:34	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 17:34	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: Crain Environmental
Job ID: 880-46542-1
Project/Site: West Eumont Unit #525

Client Sample ID: S-7 (5')
Lab Sample ID: 880-46542-7
Date Collected: 07/25/24 12:50
Matrix: Solid
Date Received: 07/26/24 13:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86912	07/30/24 22:29	CH	EET MID

Client Sample ID: S-8 (1')
Lab Sample ID: 880-46542-8
Date Collected: 07/25/24 12:55
Matrix: Solid
Date Received: 07/26/24 13:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	86874	07/29/24 09:18	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	86860	07/29/24 14:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87023	07/29/24 14:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			87100	07/30/24 17:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	86819	07/26/24 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	86941	07/30/24 17:49	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	86856	07/29/24 08:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86912	07/30/24 22:36	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Crain Environmental
Job ID: 880-46542-1
Project/Site: West Eumont Unit #525

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Crain Environmental
Project/Site: West Eumont Unit #525

Job ID: 880-46542-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-46542-1	S-1 (0-4')	Solid	07/25/24 12:20	07/26/24 13:40	0-4'
880-46542-2	S-2 (0-4')	Solid	07/25/24 12:25	07/26/24 13:40	0-4'
880-46542-3	S-3 (0-4')	Solid	07/25/24 12:30	07/26/24 13:40	0-4'
880-46542-4	S-4 (0-3')	Solid	07/25/24 12:35	07/26/24 13:40	0-3'
880-46542-5	S-5 (0-4')	Solid	07/25/24 12:40	07/26/24 13:40	0-4'
880-46542-6	S-6 (2')	Solid	07/25/24 12:45	07/26/24 13:40	2'
880-46542-7	S-7 (5')	Solid	07/25/24 12:50	07/26/24 13:40	5'
880-46542-8	S-8 (1')	Solid	07/25/24 12:55	07/26/24 13:40	1'

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Ord

880-46542 Chain of Custody

www.xenco.com

Project Manager:	Cindy Crain	Bill to: (if different)	Ryan Swift
Company Name:	Crain Environmental	Company Name:	Forty Acres
Address:	2925 E. 17th St.	Address:	11757 Katy Frwy, Ste. 725
City, State ZIP:	Odessa, TX 79761	City, State ZIP:	Houston, TX 77079
Phone:	(575) 441-7244 Email:		cindy.crain@gmail.com; ryan@faenergy.us.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: NM
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:		Turn Around	
Project Number:		☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR6
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-.1
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.1
Total Containers:		Corrected Temperature:	2.0

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015M	BTEX	Chlorides	Sample Comments
S-1 (0-4')	S	7/25/24	1220	0-4'	C	1		X	X	X	
S-2 (0-4')			1225	0-4'							
S-3 (0-4')			1230	0-4'							
S-4 (0-3')			1235	0-3'							
S-5 (0-4')			1240	0-4'							
S-6 (2')			1245	2'							
S-7 (5')			1250	5'							
S-8 (1')			1255	1'							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Cindy Crain		7/25/24 1340	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Crain Environmental Job Number: 880-46542-1

Login Number: 46542 **List Source: Eurofins Midland**
List Number: 1
Creator: Vasquez, Julisa

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Grain Environmental

Appendix E: Photographic Documentation

APPENDIX E
PHOTOGRAPHIC DOCUMENTATION
WEST EUMONT UNIT #525

View to N of release point (2/22/24).

View to E of release point and excavation (7/25/24).

View to W of release point and excavation (7/25/24).

View to N of release point and excavation (7/25/24).

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 372361

QUESTIONS

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 372361
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2405856306**
Incident Name	**NAPP2405856306 WEST EUMONT UNIT #525 @ 30-025-45482**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-025-45482] WEST EUMONT UNIT #525**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST EUMONT UNIT #525
Date Release Discovered	02/22/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Produced Water | Released: 22 BBL | Recovered: 17 BBL | Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: FORTY ACRES ENERGY, LLC 11757 KATY FWY HOUSTON, TX 77079173	OGRID: 371416
	Action Number: 372361
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Cindy Crain Email: cindy.crain@gmail.com Date: 08/09/2024

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	10900
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	89.8
GRO+DRO (EPA SW-846 Method 8015M)	89.8
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	09/23/2024
On what date will (or did) the final sampling or liner inspection occur	10/28/2024
On what date will (or was) the remediation complete(d)	11/25/2024
What is the estimated surface area (in square feet) that will be reclaimed	420
What is the estimated volume (in cubic yards) that will be reclaimed	65
What is the estimated surface area (in square feet) that will be remediated	420
What is the estimated volume (in cubic yards) that will be remediated	65
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	MONUMENT SITE #15 (TNM-94-58) [fAB0000000056]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Cindy Crain Email: cindy.crain@gmail.com Date: 08/09/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**366267**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**07/25/2024**
What was the (estimated) number of samples that were to be gathered	**8**
What was the sampling surface area in square feet	**1000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 372361

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	The remediation plan is approved as written. FAE has 90-days (November 12, 2024) to submit to OCD its appropriate or final remediation closure report.	8/12/2024